

# Katie Himanga

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May 7, 2009

William Cole Storm  
Minnesota Department of Commerce  
85 7<sup>th</sup> Place, Suite 500  
St. Paul, Minnesota 55101-2198

RE: Public Comment on Draft Environmental Impact Statement  
Xcel Energy's Prairie Island Nuclear Generating Plant  
Extended Power Uprate and Additional Dry Cask Storage Projects  
PUC Docket Number: E002/CN-08-509 (Certificate of Need-Extended  
Power Uprate)  
PUC Docket Number: E002/CN-08-510 (Certificate of Need-Additional  
Dry Cask Storage)  
PUC Docket Number: E002/GS-08-690 (Site Permit-Extended Power Uprate)

Dear Mr. Storm:

I served on the Advisory Task Force appointed to work with the Office of Energy Security (OES) on the scope of the environmental review for the Prairie Island Nuclear Generating Plant (PINGP) project. In addition I served as mayor of the City of Lake City in 2005-2008 and am a natural resources professional. Upon review of the Draft Environmental Impact Statement (EIS), I find it to be inadequate in addressing task force concerns. Incomplete or omitted information points to an overall lack of thoroughness, and the need to expand the review to reflect consideration of the natural resources surrounding the power plant. What follows are my comments related to the natural resource components of the EIS.

The advisory task force made specific requests related to Xcel's proposed project. These, along with proposed OES treatment of task force comments, are contained in Advisory Task Force Summary of Work, Appendix E – EIS Scoping Work Sheets with OES Treatment, November 15, 2008.

Lake Pepin, the Mississippi River, and its tributaries are interacting components of the world's third largest river system. The thermal plume of water discharge has potential to impact vertebrate and invertebrate organisms, parasites, ice cover, and the distribution of sediment in the river bed and in Lake Pepin.

The communities of Red Wing, Frontenac, Lake City, and Wabasha in Minnesota and Hager City, Maiden Rock, Stockholm, Pepin and Nelson in Wisconsin rely heavily on the Mississippi River and Lake Pepin for a secure future. The potential negative

impacts that result from the expansion of operations at the PINGP warrant the establishment of baselines of aquatic and plant health as well as the development and implementation of a monitoring system to detect adverse impacts before they become critical.

### **Draft EIS Document Contributors**

Nobody representing natural resources interests is listed in the document as a preparer – contributor (page ii). This despite the Minnesota Department of Natural Resources (MDNR) comment that, "This reach of the Mississippi River is a very high priority for DNR because of the intrinsic natural resource values of the surrounding area, the high recreational use, and the high profile walleye/sauger sport fishery that exists here (MDNR Comment Letter on the PINGP Scope, October 7, 2008.)

### **Environmental Setting**

Although identified as a matter to be addressed in the EIS, a section describing Environmental Setting is omitted from the Draft EIS (EIS Chapter 1 Appendix A, II. Matters To Be Addressed In The EIS, 4.0 Environmental Setting). Rather, a May 1973 document is cited in Chapter 1, page 46, 4.0 Human and Environmental Impacts, and some information is sprinkled throughout the document.

This is a critical omission. For informed review and interpretation of the EIS its reader needs a complete description of Environmental Setting. Text of the 1973 document should be included in this EIS or provided as a supplement. A 36 year old document is probably in need of updating.

Since 1973, a lot of information has emerged about additional environmental stressors stemming from climate change. Climate change may exacerbate the impacts of the PINGP. This correlation needs to be addressed. Monitoring and mitigation strategies need to be optimized.

The Draft EIS lacks baseline information related to air, water, and some other natural resources and does not include a discussion of the interaction of the various resources (Appendix E – Chapter 1 – Comment 18). Baseline information for these items needs to be acquired and a plan for a system of monitoring developed and implemented if the PINGP projects are allowed.

The advisory task force asked that three specific letters be included in the EIS by reference. Two were excluded: Wisconsin Department of Natural Resources letters to the US Nuclear Regulatory Commission dated September 8, 2008, and to the Minnesota Pollution Control Agency letter dated April 3, 2000 (Appendix E – Chapter 2 – Comment 16). The April 3, 2000 letter includes an informative graphic that illustrates the PINGP thermal plume on June 5, 1998 (Figure 2).

National Weather Service information about wind patterns and US Army Corps of Engineers/USGS historic and ongoing data on Lake Pepin ice cover are absent from the EIS (Appendix E – Chapter 1, Comments 21 and 22). Also requested by the task force, but missing from the Draft EIS, are references to National Weather Service, US Army Corps of Engineers, USGS historic and ongoing data on flooding and drought in the Upper Mississippi River watershed (Appendix E – Chapter 1 – Comment 23).

The Draft EIS lacks maps showing the plume extensions of PINGP discharges into surface water, groundwater and air. The task force asked that the current extent of thermal and radioactive discharges into the environment be documented as a baseline for ongoing study and analysis of impacts (Appendix E – Chapter 2 – Comment 17). Emissions plumes should be documented to the extent they exist in an ecosystem, based on science, without artificial geographic or distance limits.

### **Aquatic Communities**

Fish population benchmark. The 1970s appears to be the baseline selected for EIS conclusions about fish populations. ("Fish populations in the vicinity of Prairie Island today look remarkably like fish populations in the 1970s," Chapter 1, page 47, 4.2 Biological Resources – Aquatic Communities). The basis for using the 1970s as a comparison is not supported in the EIS. Given the environmental condition of the river due to pollution from upriver sources, the 1970s may not be an appropriate benchmark for fish. The Minnesota Department of Natural Resources should determine the best practical baseline to use for comparisons.

Lake Pepin impairment. Lake Pepin, into which the Mississippi River flows at Red Wing, was listed by the Minnesota Pollution Control Agency as impaired for aquatic recreation due to nutrient/eutrophication biological indicators (i.e. phosphorus) in 2004. A TMDL study is scheduled for completion in 2009 (MPCA Inventory of Impaired Waters). This impairment and the effect of the proposed operation of the PINGP on the impaired water should be included in the EIS. Warm water discharged from the PINGP may exacerbate the problem of Lake Pepin eutrophication.

Dechlorination process impacts. No mitigation alternatives are offered in the EIS to address the problem of chlorine entering the river: "The dechlorination process does impact the fish populations in the Mississippi River" and will continue periodically (Chapter 1, page 48-49, 4.0 Biological Resources – Thermophilic Organisms and Pathogens).

### **Surface Water – Thermal Discharge**

The Draft EIS does not provide satisfactory evidence that the best available technology for water dispersion modeling and analysis will be used to assess the natural ecosystem and cultural impacts of thermal discharge. A plan for mitigating adverse

impacts is absent. The EIS should provide for the best available technology to model the thermal discharge and a plan for monitoring.

The EIS leaves the reader thinking that operation of the PINGP has no impact on ice cover on Lake Pepin. This contradicts statements made by MDNR. "Thermal discharge from PINGP results in areas of variable and unpredictable ice cover on Lake Pepin. This results in some reductions in accessibility to certain areas of the lake and increases concern for safety overall" MDNR requested that Xcel provide a companion discussion of expanded cooling tower capacity that addresses the additional increment of thermal load to the river. A dry cooling tower was suggested: "This will prevent further deterioration of ice cover on Lake Pepin" (MDNR Comment Letter on the PINGP Scope, October 7, 2008). The EIS needs to respond to the concerns and suggestions of the Minnesota Department of Natural Resources.

The EIS does not provide adequate information about the cumulative impacts to surface waters related to the PINGP use of river water and its thermal discharge increases. It does not provide for independent verification of the effects of thermal impacts on fish, plants and other organisms, and Mississippi River and Lake Pepin ecology. It needs to provide for these items.

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Thank you for consideration of these comments. I hope the Final EIS will address the natural resource issues I mention and will require the establishment of baseline information, ongoing monitoring and analysis, and mitigation of adverse impacts.

Respectfully submitted,

/s/ Katie Himanga